

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	11/16/2022	

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER PS-618-360-14B-SFF OPT1518 IS A DIGITALLY TUNED PHASE SHIFTER OPTIMIZED OVER THE 15 TO 18 GHz FREQUENCY RANGE. THIS UNIT IS TUNED USING FOURTEEN TTL CONTROL BITS.

SPECIFICATIONS:

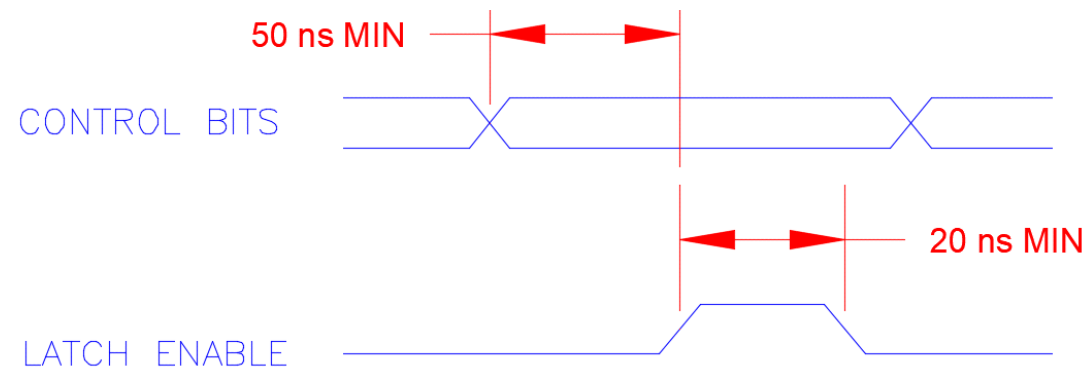
- FREQUENCY:..... 6 TO 18 GHz, OPTIMIZED FOR 15 TO 18 GHz
- VSWR (J1 AND J2):..... 2:1 MAX
- INPUT P1dB POWER LEVEL:..... +10 dBm MIN
- SURVIVAL INPUT POWER LEVEL:..... +20 dBm MAX
- INSERTION LOSS:..... 12 dB MAX

- SWITCHING SPEED:..... 500 ns MAX
- PHASE SHIFT RANGE:..... 360° NOMINAL (0 TO (360° - 1 LSB))
- PHASE SHIFT ACCURACY:..... ± 10° TYP, ± 15° MAX

- DIGITAL CONTROL BITS:..... 14 BITS
- CONTROL LOGIC:..... TTL

- LATCH CONTROL LOGIC:..... TTL

LATCH TIMING DIAGRAM:

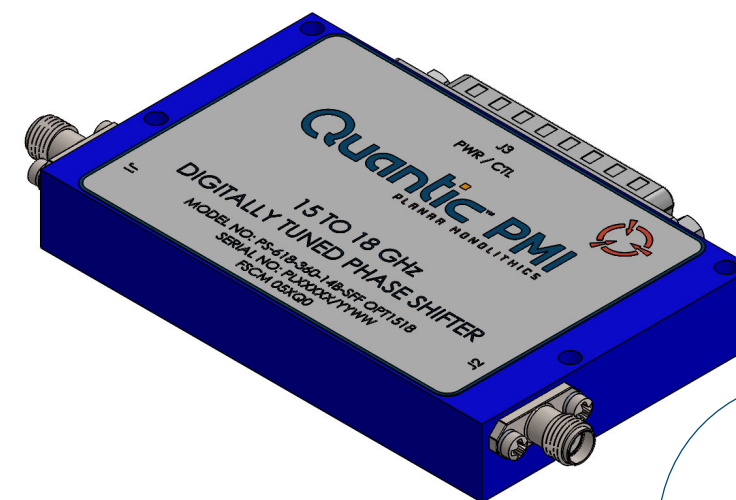


- POWER SUPPLY:..... +12 V @ 250 mA MAX
-12 V @ 100 mA MAX
- RF CONNECTORS:..... SMA (F)
- POWER / CONTROL CONNECTOR:..... 25 PIN D-SUB (M)
- FINISH:..... PAINTED BLUE, MOUNTING SURFACE GOLD PLATED

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... 10°C TO +30°C (OPERATING)
-40°C TO +85°C (STORAGE)

J3 25-PIN CONNECTOR PIN-OUT		
PIN	FUNCTION	VALUE
1	CONTROL BIT 0	(0.02197265625°) - LSB
2	CONTROL BIT 1	(0.0439453125°)
3	CONTROL BIT 2	(0.087890625°)
4	CONTROL BIT 3	(0.17578125°)
5	CONTROL BIT 4	(0.3515625°)
6	CONTROL BIT 5	(0.703125°)
7	CONTROL BIT 6	(1.40625°)
8	CONTROL BIT 7	(2.8125°)
9	CONTROL BIT 8	(5.625°)
10	CONTROL BIT 9	(11.25°)
11	CONTROL BIT 10	(22.5°)
12	CONTROL BIT 11	(45°)
13	CONTROL BIT 12	(90°)
14	CONTROL BIT 13	(180°) - MSB
15	LATCH ENABLE	
16	GND	
17	GND	
18	+V	
19	+V	
20	GND	
21	GND	
22	-V	
23	-V	
24	GND	
25	GND	

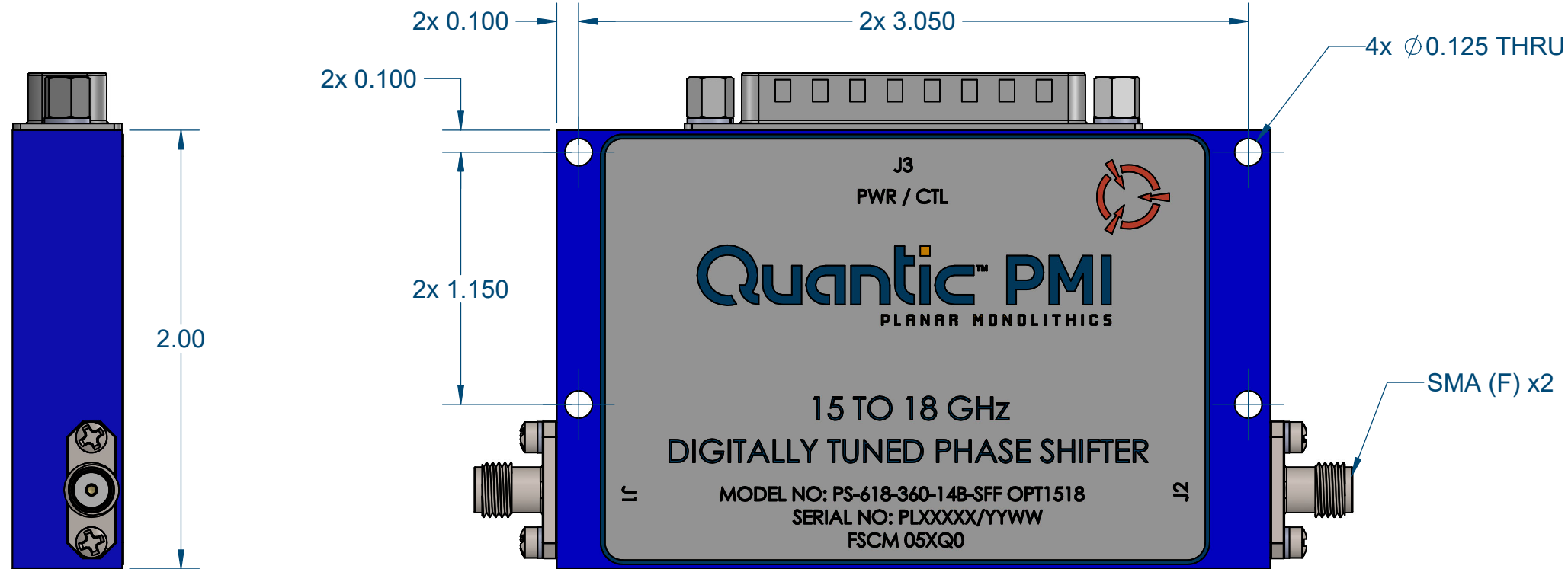
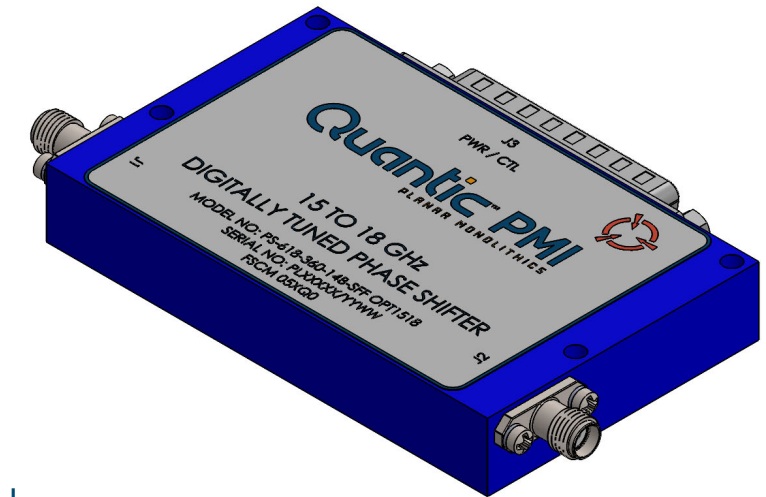
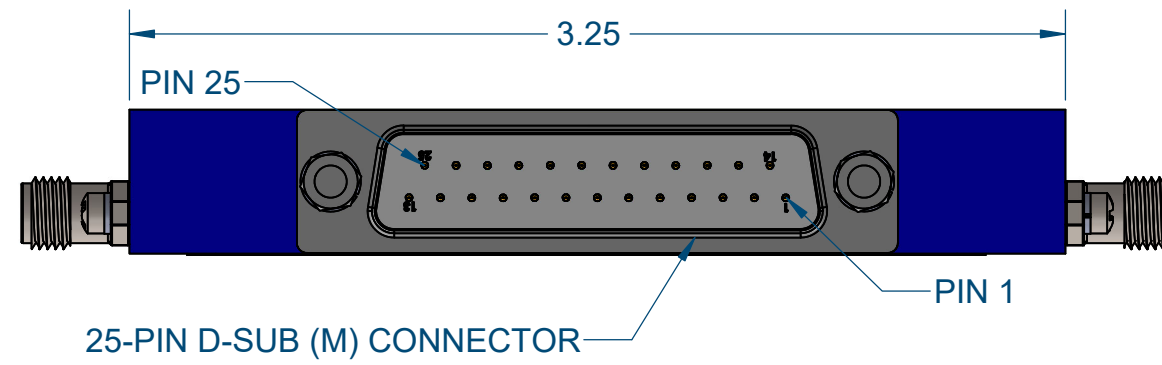


PMI CONFIDENTIAL AND PROPRIETARY

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± .XXX ± 0.01		<table border="1"> <thead> <tr> <th>APPROVALS</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRAWN D. DURBIN</td> <td>11/16/2022</td> </tr> <tr> <td>REDRAWN</td> <td></td> </tr> <tr> <td>ISSUED</td> <td></td> </tr> </tbody> </table>		APPROVALS	DATE	DRAWN D. DURBIN	11/16/2022	REDRAWN		ISSUED		<p>Quantic PMI PLANAR MONOLITHICS 7309-A GROVE ROAD FREDERICK MARYLAND 21704 USA TEL: (301) 662-5019, FAX: (301) 662-1731 WEB: WWW.PMI-RF.COM, EMAIL: SALES@PMI-RF.COM ISO 9001 CERTIFIED</p>	
APPROVALS	DATE												
DRAWN D. DURBIN	11/16/2022												
REDRAWN													
ISSUED													
TITLE DIGITALLY TUNED PHASE SHIFTER PS-618-360-14B-SFF OPT1518		SIZE B	FSCM NO. 05XQ0	DWG NO. PRELIMINARY	REV. 1								
SCALE 1:1			SHEET 1 OF 2										

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	11/16/2022	



PMI CONFIDENTIAL AND PROPRIETARY

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± ± .XXX ± 0.01		APPROVALS		DATE	 PLANAR MONOLITHICS 7309-A GROVE ROAD FREDERICK MARYLAND 21704 USA TEL: (301) 662-5019, FAX: (301) 662-1731 WEB: WWW.PMI-RF.COM, EMAIL: SALES@PMI-RF.COM ISO 9001 CERTIFIED	TITLE		
		DRAWN D. DURBIN		11/16/2022		DIGITALLY TUNED PHASE SHIFTER		
REISSUED			PS-618-360-14B-SFF OPT1518					
SIZE	FSCM NO.	DWG NO.	REV.					
B	05XQ0	PRELIMINARY	1					
SCALE 1.5:1			SHEET 2 OF 2					